

SAFETY & HEALTH ALERT

Assistant Secretary for Environment, Safety & Health • U.S. Department of Energy • Washington, D.C. 20585

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Preliminary Accident Investigation Findings from Oak Ridge Accident

As you are aware, the Office of Environment, Safety and Health established a DOE Type A Accident Investigation Board to determine the causal factors and root cause of the welding/cutting fatality at the Oak Ridge K-25 site. Because it may be several weeks before the Board's final report will be issued and because of the significance of this accident to similar work being conducted throughout the Department, I want to alert you to some personnel safety issues you should address at sites under your cognizance.

The accident at the Oak Ridge K-25 site involved welders working outside a fixed shop area removing equipment from a facility in a high contamination area using oxygen/acetylene cutting torches. Because the work was being performed in a radiological area, the welders were required to wear anti-contamination clothing in addition to full face respirators and a welder's mask.

Preliminary analysis of the accident has indicated that sparks and/or molten metal (slag) from the cutting operations ignited the welder's anti-contamination clothing. Based on preliminary input from the Board, the flammability of the clothing, the worker's inability to see that his clothing was on fire, and the lack of a designated/dedicated fire watch for the operations appear to be contributing factors to the accident. In this accident, fire consumed the clothing being worn by the welder in a very short period of time (approximately 3 minutes or less).

The anti-contamination clothing provided was 100% cotton and not treated with flame retardant. Although some DOE sites have flame retardant anti-contamination clothing available for use by workers, there are no regulatory, industrial, or Departmental requirements for the use of such clothing in operations similar to that ongoing at the K-25 site at the time of the accident. Personnel safety responsibilities for the fire watch are similarly not specifically defined or required.

Therefore, you should review the following personnel safety issues at your sites, for work involving similar hazards, involving the adequacy of:

- Fire watch procedures in covering personnel safety as well as property loss control (e.g. maintaining line of sight).
- Fire watch training in regard to personnel safety and emergency aid/response.
- Fire mitigation equipment, for personnel and property, available to the fire watch to carry out his/her responsibilities.
- Existing policy/requirements at your sites for the use of flame retardant treated anti-contamination clothing by workers involved in operations with similar hazards.

Copies of the Board's final Accident Investigation Report, which will identify the Judgments of Need to help prevent recurrence not only at Oak Ridge K-25 site but throughout the Department, will be made available to you in several weeks after it is accepted by EH-1.

Should you have any questions on this matter, please contact Ms. Barbara Stone of my staff at 301-903-5895.



This Safety & Health Alert is one in a series of publications issued by EH to share occupational safety and health information throughout the DOE complex. To be added to the Distribution List or to obtain copies of the publication, call **1-800-473-4375** or **(301) 903-8358**. For additional information regarding the publications, call Mary Cunningham at **(301) 903-2072**.